

Project: USACE Former NPD Lab Site Investigation**Project Location: Troutdale, Oregon****Project Number: 53-F0074212****Log of Boring SS-002**

Sheet 1 of 1

Date(s) Drilled	9/7/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	3 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	34.46 ft msl
Groundwater Level	Not encountered	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Background Area		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0							Gray SILT with organic debris (loose) (dry)	
			1		0	ML SM	Gray SAND with some silt and gravel (loose) (dry) (no odor, no stain) Decreasing silt with depth Strong oxidized iron layer	11:30 SS-002-01
							Boring was completed to 3' bgs. Groundwater was not encountered. Boring was backfilled with bentonite.	11:35 Sampled at 3' bgs approximate depth of location originally planned but Geoprobe access was not possible; new location is 2 feet west
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Project: USACE Former NPD Lab Site Investigation

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Log of Boring SS-003

Sheet 1 of 1

Date(s) Drilled	9/6/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	12 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	34.65 ft msl
Groundwater Level	10.5 ft bgs	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Drainage Ditch (freeze-thaw drain)		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0							Light gray SILT with trace sand and organic debris (loose) (non plastic) (dry) (no odor) (no sheen)	14:45
			1		0		Gray to dark gray, silty, coarse SAND with some strongly oxidized iron (loose) (moist) (no odor, no stain)	SS-003-01
5							Light gray SILT with some fine sand (loose) (dry)	SS-003-05
			2		0		Gray to dark gray, silty, coarse SAND (loose) (wet) (no odor, no stain)	15:05
10			3		0		Same as above (no odor, no sheen)	15:10
							Boring was completed to 12' bgs. Groundwater was encountered at 10.5' bgs. Boring was backfilled with bentonite.	15:20
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Project: USACE Former NPD Lab Site Investigation

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Log of Boring SS-004

Sheet 1 of 1

Date(s) Drilled	9/6/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	12 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	34.46 ft msl
Groundwater Level	9 ft bgs	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Drainage Ditch (sump drain and former removal area)		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0							Gray, fine SAND with trace organic debris (loose) (fill) (no odor, no sheen)	11:30
			1		0		Dark gray with orange mottling from iron oxidation, silty, coarse, angular SAND with some gravel (loose) (moist) (no odor, no stain)	11:35
			2					SS-004-03
			3		0		(wet)	9 ft ▼
							Gray to brown SILT with trace sand (non plastic) (wet) (no odor, no sheen) (native)	11:50
							Boring was completed to 12' bgs. Groundwater was encountered at 9' bgs. Boring was backfilled with bentonite.	
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Project: USACE Former NPD Lab Site Investigation

Project Location: Troutdale, Oregon

Project Number: 53-F0074212

Log of Boring SS-006

Sheet 1 of 1

Date(s) Drilled	9/6/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	5 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	34.36 ft msl
Groundwater Level	Not encountered	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Drainage Ditch (drain plug to former hazardous material storage building)		

Elevation, feet	Downhole Depth, feet	SAMPLES			USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Recovery (%)	OVM (ppm)			
	0				ML	Gray, sandy SILT with organic debris (loose) (non plastic) (moist) (no odor, no stain)	
				0	ML	Brown with some orange mottling, sandy SILT with trace gravel (loose) (moist)	10:30
					SM	Gray, silty, coarse SAND with some gravel (dry) (no odor, no sheen)	SS-006-01
				0			SS-006-05
	5						10:45
						Boring was completed to 5' bgs. Groundwater was not encountered. Boring was backfilled with bentonite.	
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Project: USACE Former NPD Lab Site Investigation

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Log of Boring SS-007

Sheet 1 of 1

Date(s) Drilled	9/6/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	5 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	33.64 ft msl
Groundwater Level	Not encountered	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Drainage Ditch (former oil storage building)		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0					0		Dark gray to gray, sandy SILT with organic debris (loose) (non plastic) (dry) (no odor, no sheen) Grading (moist) Gray to dark gray, silty, fine SAND with some orange mottling (moist) (no odor, no sheen)	9:45 SS-007-01
		1			0			SS-007-05
5					0			10:00
							Boring was completed to 5' bgs. Groundwater was not encountered. Boring was backfilled with bentonite.	Possible compaction from probe
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Log of Boring SS-008

Sheet 1 of 1

Date(s) Drilled	9/6/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	5 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	33.24 ft msl
Groundwater Level	Not encountered	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Drainage Ditch (corner of NW Graham Road)		

Elevation, feet	Downhole Depth, feet	SAMPLES			USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Recovery (%)	OVM (ppm)			
0					SP	Gray, fine SAND (loose) (dry) (no odor, no stain) (fill)	8:00 SS-008-01
		1		0	SM	Concrete cap Gray to dark gray with some oxidized iron stains, silty SAND (loose) (moist) (no odor, no stain) (native)	
5		2		0			SS-008-05 8:30
						Boring was completed to 5' bgs. Groundwater was not encountered. Boring was backfilled with bentonite.	Boring duplicate advanced approximately 1 foot west of original location for MS/MSD quantities
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Log of Boring SS-009

Sheet 1 of 1

Date(s) Drilled	9/5/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	12 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	37.38 ft msl
Groundwater Level	Not encountered	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Former Dry Well Area		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0								
			1		0		Gray SILT with some fine, angular, SAND (non plastic) (dry) (no odor, no sheen) (native)	14:45
							Grading light brown (loose) (moist) (no odor, no stain)	
5			2		0		Grading gray with some rust colored mottling (moist) (no odor, no sheen)	SS-009-08
					0		Same as above (no odor, no sheen)	14:55
10			3		0		Gray to dark gray SAND with decreasing silt with depth, trace gravel (wet)	SS-009-11
								15:20
15							Boring was completed to 12' bgs. Groundwater was encountered at 11' bgs. Boring was backfilled with bentonite.	
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Log of Boring SS-010

Sheet 1 of 1

Date(s) Drilled	9/5/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	12 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	37.06 ft msl
Groundwater Level	11 ft bgs	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Former Dry Well Area		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0							Gray SILT with trace sand and organic debris (dry) (fill)	
						ML	Brown SILT (non plastic) (moist) (native)	15:25
		1			0		Gray, angular SAND with some silt and rounded gravel (dry) (no odor, no stain)	
5			2		0			SS-010-08
							Same as above (moist) (no odor, no stain)	SS-310-08
								15:35
10		3			0		Increasing silt	
						SP	Gray, coarse, angular SAND with trace silt (wet) (no odor, no stain)	SS-010-12
								11 ft ▼
15							Boring was completed to 12' bgs. Groundwater was not encountered. Boring was backfilled with bentonite.	16:00
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Log of Boring SS-011

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Date(s) Drilled	9/5/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	12 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	37.51 ft msl
Groundwater Level	11.5 ft bgs	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Former Dry Well Area		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0								
			1		0		Brown SILT with fine sand and organic debris (dry) (no odor, no stain)	16:00
5			2		0		Brown to gray, fine to coarse SAND with some silt and trace gravel (moist) (no odor, no stain) Decreasing silt with depth	16:20
					0		Gray-rust stained SAND with no fines or gravel (moist) (no odor, no stain)	SS-011-08
10			3		0		Brown SILT lense (non plastic) (moist) (no odor, no stain)	
					0		Dark gray, coarse SAND with some silt and trace well rounded gravel	SS-011-11
							11.5 ft ▼	16:30
15							Boring was completed to 12' bgs. Groundwater was encountered at 11.5' bgs. Boring was backfilled with bentonite.	
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Log of Boring SS-012

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Date(s) Drilled	9/5/01	Logged By	ALZ	Checked By	JAR
Drilling Method	Geoprobe®, direct push	Drilling Contractor	Geotech, Inc.	Total Depth of Borehole	12 feet
Drill Rig Type	GP-1	Drill Bit Size/Type		Ground Surface Elevation	36.73 ft msl
Groundwater Level	11.5 ft bgs	Sampling Method	Acetate Lined Split Spoon Sampler	Hammer Data	175 lb
Borehole Backfill	Hydrated Bentonite	Location	Former Dry Well Area		

Elevation, feet	Downhole Depth, feet	SAMPLES				USCS	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
		Type	Number	Recovery (%)	OVM (ppm)	Graphic Log		
0			1				ML	Brown SILT with some organic debris
			2				SM	Gray, silty, coarse SAND with some silt (moist) (no odor, no stain)
5			3					Grading brown-oxidized iron stains, coarse SAND with some silt (moist) (no odor, no stain)
								Grading gray
10			4					Gray to dark gray, coarse SAND with some silt and gravel (strong solvent odor) (moist to wet) (no sheen)
								Boring completed to 12' bgs. Groundwater encountered at 11.5' bgs. Boring backfilled with bentonite.
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